Bilateral Basal Ganglia Lesions in a Hemodialysis Patient

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Consciousness disturbance is a common problem in patients undergoing dialysis. For uremia patients who present with consciousness disturbance and specific findings focus on the bilateral ganglions on an imaging study are rare.

A 52-year-old female was admitted because of general weakness and drowsy consciousness for one day. Her past history included end-stage renal disease; she had been on regular hemodialysis for 5 years. An abrupt attack of seizure (grand mal) occurred during hospitalization. Computed tomography of the brain showed bilateral basal ganglions with hypo-dense lesions. T1-weighted magnetic resonance (MR) image demonstrated abnormally low-intensity T1 signal at basal ganglions and a high signal on T2-weighted MR image (Picture 1).

The underlying etiology of this clinical presentation is not fully understood in our patient. Some studies have suggested that this is related to brain hypo-perfusion, or uremia toxins and it may be closely related to diabetic mellitus (1, 2). Furthermore, the syndrome in uremia patients implies a complicated clinical course and a poor long-term prognosis (1, 2).

References